

ABSTRACT

An apparatus and method for generating a comparand in a content addressable memory array. For one embodiment, the apparatus includes a content addressable memory (CAM) array and translation circuitry. The CAM array receives a comparand and the translation circuitry includes at least one first input, at least one second input, and at least one output. The first input is configured to receive an input data having a plurality of bit groups, wherein a first bit group has a first position in the input data relative to other bit groups. The second input is configured to receive translation information indicative of translation of the first bit group from the first position to a different position in a comparand. The output is coupled to the CAM array to transmit the comparand to the CAM array. For one example, the translation circuitry includes a switch circuit that may include one or more multiplexers or demultiplexers. The translation circuitry may also include one or more storage elements to store the translation information, and one or more decode circuitry to decode the translation information and establish switch circuit connections between the first position and the position in the comparand.